Chapter 3

READY, SET, GO! A Model of the Relation between Work Engagement and Job Performance

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Abstract People are the engine of each organization and constitute the foundation upon which it is built. However, unhealthy employees may cause this foundation to crumble due to high levels of absenteeism and subsequent increasing costs. In order to prevent such negative effects, the organizational sciences have paid much attention to the negative aspects of work life (Wright & Cropanzano, 2004), such as job burnout (Halbesleben & Buckley, 2004). But due to this negative focus, the *positive* aspects of working life have largely been ignored. This is unfortunate, as mentally and physically healthy employees are likely to perform very well (e.g., Fisher, 2003). The current chapter aims to enhance our understanding of the relation between the positive side of employee well-being and job performance. The basic tenet of this chapter is that job performance is optimal if employees are in an affective-motivational state of mind that is called *work engagement* (Bakker & Demerouti, 2007). We present our ideas on the relation between work engagement and job performance in a theoretical framework. After consideration of previous work on the effect of employee well-being on organizational outcomes, we discuss research on the relation between employee engagement and performance based on the *Job Demands-Resources Model* (Schaufeli & Bakker, 2004). After arguing for more systematic research on this topic, attention is first paid to our current knowledge on *job performance* followed by introducing a *taxonomy of job performance*. Finally, this chapter proposes two explanations of why high levels of work engagement make employees better performers than low levels of work engagement. The chapter closes with a short summary of the theoretical framework and an agenda for future research.

Keywords Work Engagement, Job Performance

1. Introduction

People are the engine of each organization and constitute the foundation upon which it is built. However, unhealthy employees may cause this foundation to crumble due to high levels of absenteeism and subsequent increasing costs. In order to prevent such negative effects, organizational sciences have paid much attention to the negative aspects of work life (Wright & Cropanzano, 2004), such as job burnout (Halbesleben & Buckley, 2004). Due to this negative focus, the positive aspects of working life have largely been ignored. This is unfortunate, as mentally and physically healthy employees are likely to perform very well (e.g., Fisher, 2003).

The current chapter aims to enhance our understanding of the relation between the positive side of employee well-being and job performance. The basic tenet of this chapter is that job performance is optimal if employees are in a positive affective-motivational state of mind that is called *work engagement* (Bakker & Demerouti, 2007). We present our ideas on the relation between work engagement and job performance in a theoretical framework. After consideration of previous work on the effect of employee well-being on organizational outcomes, we discuss research on the relation between employee engagement and performance based on the *Job Demands-Resources Model* (Schaufeli & Bakker, 2004). After arguing for more systematic research on this topic, attention is first paid to our current knowledge on *job performance* followed by introducing a *taxonomy of job performance*. Finally, this chapter proposes two explanations of why high levels of work engagement make employees better performers than low levels of work engagement. The chapter closes with a short summary of the theoretical framework and an agenda for future research.

2. Are Happy Workers Better Performers

There is a long tradition of research based on the so-called "happy-productive worker hypothesis" (Fisher, 2003). At first glance it seems plausible that happy employees are also productive employees – as is assumed

by this hypothesis. However, empirical research shows that this relationship is relatively weak. Fisher (2003) discussed six meta-analyses and concluded that there is only a weak positive correlation (r = .19) between overall job satisfaction and overall job performance. Interestingly, the magnitude of the association between "happiness" and performance apparently depends on how happiness is operationalized (Wright & Cropanzano, 2000). Wright and Cropanzano's review shows that if happiness is measured as an affective state of mind such as "well-being", it relates relatively strongly to performance (.32 <r< .34). However, considering happiness in terms of cognition such as a judgment of "satisfaction" resulted in a considerably weaker relation between happiness and performance (-.08 <r< .08). At the organizational level, a similar result was recently reported by Taris and Schreurs (2009), who found that "satisfaction" was positively related to client satisfaction, but unrelated (or even negatively related) to productivity. By contrast, negative employee "well-being" (i.e., emotional exhaustion) was associated with low client satisfaction and low productivity.

In sum, contrary to employee well-being, job satisfaction seems relatively weakly related to performance at both the individual and the organizational level. An explanation could be that satisfaction does not necessarily refer to an active state of mind (e.g., Büssing, 1992, distinguishes among no less than six different forms of job satisfaction, some of which actually involve a passive attitude towards the job), whereas burnout and engagement (two forms of well-being) literally refer to inactivity and activity, respectively. As job satisfaction is mostly considered an evaluation of an experienced job (Wright & Cropanzano, 2000), the degree of job satisfaction refers to an overall judgment and not to motivation. In contrast, employee wellbeing such as work engagement is considered to be a motivational state of mind (Schaufeli & Bakker, 2004), and refers to the affect or feelings one experiences when at work. It is the energy and inspiration one experiences at work that motivates one to work hard and perform well.

This is why the current theoretical framework focuses on work engagement instead of satisfaction as a precursor of job performance, assuming that this active form of well-being could lead to more consistent results in relation to

performance than job satisfaction. Engagement is defined as a positive, fulfilling, work-related state of mind characterized by vigor, dedication and absorption (i.e., being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulty detaching oneself from work; Schaufeli & Bakker, 2004). Consistent with the happy-productive worker hypothesis, we assume that engaged (happy) workers will be productive workers as well.

To date, research on the happy-productive worker hypothesis has produced little insight into the psychological processes that potentially account for the link between engagement and performance (Taris & Schreurs, 2009). This link is merely assumed and not explained. Most research mainly focused on the effect of workers' well-being on job performance, without paying attention to the characteristics of their jobs. However, these job characteristics largely determine employees' well-being (work engagement) at work (Warr, 2007). Certain job characteristics are potentially motivating (Hackman & Oldham, 1976), while other characteristics lead to exhaustion (Schaufeli & Bakker, 2004). Therefore, it is impossible to understand the potential psychological processes underlying job performance if these characteristics are not taken into consideration.

A theoretical model that incorporates both the relation between job characteristics and work engagement as well as the association between work engagement and job performance indicators is the Job Demands-Resources (JD-R) model of work engagement (Bakker & Demerouti, 2007). Accentuating mentally and physically healthy employees, the *JD-R model of work engagement* (JDR-WE model) proposes that engagement mediates the association between job characteristics on the one hand and performance on the other. In other words, this model assumes that the motivational potential of certain job characteristics are transformed into job performance through work engagement. Although the model assumes a positive relation between work engagement and job performance, the model does not specify different types of job performance and does not specify why work engagement would lead to better performance. Therefore, this chapter a) presents a taxonomy of job performance and b) introduces two explanatory mechanisms for the

engagement – performance relation.

3. Towards a Taxonomy of Job Performance

Derived from the Job Demands-Resources model (Schaufeli & Bakker, 2004) the JDR-WE model (JDR-WE) (Bakker & Demerouti, 2007, 2008) assumes that all jobs contain "demands" and "resources". Job demands refer to those physical, psychological, social or organizational aspects of the job that require sustained physical, and/or psychological (i.e., cognitive or emotional) effort and are therefore associated with certain physiological or psychological costs, such as (mental) fatigue. Job resources refer to those job characteristics that help to cope with job demands (e.g., autonomy or support from colleagues), are functional in attaining work-related goals, or lead to personal growth and development (e.g., coaching by the manager). In other words, job resources have motivational potential. The JDR-WE model draws on two assumptions: (1) Job resources such as autonomy, social support from colleagues and supervisors, performance feedback, and skill variety, initiate a motivational process that leads to higher performance through work engagement, and (2) job resources become more salient and realize their motivational potential in terms of work engagement as a function of job demands. Thus, employees are particularly engaged when both job resources and job demands are high. The core of the motivational process is the motivational potential of job resources, which allows employees to attain their goals, i.e., to perform well.

3.1. Work Engagement and Performance

A series of studies have been conducted, providing initial support for the motivational process of the JDR-WE model (for an overview, see Bakker & Demerouti, 2007). For example, work engagement correlates with attitudinal measures such as organizational commitment (Hakanen, Bakker & Schaufeli, 2006; Hakanen, Schaufeli & Ahola, 2008) and turnover intention (Schaufeli & Bakker, 2004). Furthermore, research investigating whether engagement mediates the relation between job resources and job performance found that an increase in job resources led to higher work engagement and lower subsequent

absenteeism (Schaufeli, Bakker & Van Rhenen, 2009).

Other studies investigated various performance indicators using the JDR-WE model. For instance, self-reported medical errors correlated negatively with physicians' engagement (Prins et al., 2009), while supervisors and coworkers rated highly engaged employees higher on in-role performance than others (Halbesleben & Wheeler, 2008). At the work-unit level, work engagement led to greater innovativeness through higher personal initiative (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Further, work engagement among hotel staff affected the customer-assessed quality of services positively (Salanova, Agut, & Peiró, 2005). Finally, in a diary study in a fast food restaurant, Xanthopoulou, Bakker, Demerouti and Schaufeli (2009) found that the daily available job resources among the serving staff had a positive effect on their financial yields for each work shift as a function of their work engagement. Summarizing, there are clear indications that performance indicators such as absenteeism, customer satisfaction, in-role and extra-role performance and financial returns indirectly correlate with job characteristics (job demands and resources) through workers' well-being (burnout and engagement), as predicted by the JD-R model.

Although the studies discussed above have undoubtedly provided us with very valuable information about the relations between job characteristics, engagement and performance, future studies can benefit from some improvements. First, job performance can be operationalized in a more systematic manner. Performance can be measured objectively (e.g., registered sick leave or financial returns), inter-subjectively (for example, supervisor or client evaluations) or subjectively (such as self-assessment questionnaires) (Jex, 1998), as well as at the individual, team or organizational level. To our knowledge, these various ways of measuring performance have as yet not systematically been applied and evaluated. Based on how one defines job performance (e.g., in terms of organizational objectives or from the perspective of employee's roles within the organization), one also decides upon the operationalization of the theoretical concept. Of course, different definitions and operationalizations of job performance do not exclude one another, but are largely complementary (Fay & Sonnentag, 2010). Thus, due to the

multi-dimensional concept job performance is, work engagement may affect the distinct dimensions of performance differently. Therefore, it is necessary to develop a taxonomy of job performance. Hence, such a conceptual overview enables us to systematically study the effect of engagement on performance.

Second, little attention is paid to the explanatory mechanism of the assumed relation between work engagement and job performance in the JDR-WE. In order to clarify this presumably positive relation, a closer look should be taken at how related concepts were previously found to affect performance. That is, how human motivation was previously found to influence human performance.

3.2. Process and Outcome Performance

Both in definition and in operationalization, performance refers to behavior as well as outcomes. In other words, job performance can be divided into *process* performance and *outcome* performance (Roe, 1999). *Process* performance refers to the particular actions or behaviors which employees exhibit to achieve performance (effective outcomes) or what employees do in their work situation. *Outcome* performance refers to the products or services that are produced and whether these are consistent with the overall strategic goals of the organization. As this distinction suggests, *process* performance precedes *outcome* performance by definition. However, while one may assume that *the particular actions or behaviors employees exhibit (process performance)* affect *the products or services they produce (outcome performance)*, most research on job performance has focused on either one of two aspects of performance instead of a combination (compare i.e., Griffin, Neal, & Parker, 2007 vs. Richard, Devinney, Yip, & Johnson, 2009). Under the assumption that process performance predicts outcome performance, our taxonomy of job performance (Figure 1) distinguishes between three types of behavior an employee may exhibit in order to produce the product or service needed.

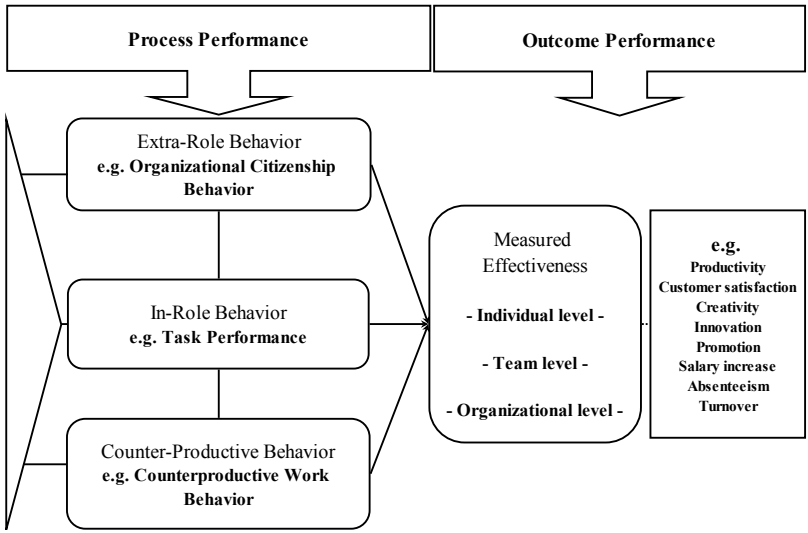

Figure 1. Taxonomy of job performance

An initial look at the operationalizations of *process* performance such as organizational citizenship behavior (OCB; Smith, Organ, & Near, 1983), task performance (Goodman & Svyantek, 1999) and counterproductive work behavior (CWB; Fox & Spector, 1999) indicates that organizational behavior can be perceived as either extra-role (i.e., 'Helps others who have heavy workloads' – OCB), in-role (i.e., 'Fulfills all the requirements of the job' – task performance) or counter-productive (i.e., 'Put little effort into your job' – CWB). Moreover, a systematic literature search (Koopmans, Bernaards, Hildebrandt, Schaufeli, De Vet, & Van der Beek, 2011) confirms this distinction among extra-role behavior, in-role behavior and counter-productive behavior. As process performance is assumed to predict outcome performance, our taxonomy proposes that these three types of job behavior increase or decrease the effectiveness of the production of products and/or services.

Since o*utcome* performance refers to the products or services that are produced in accordance with the overall strategic goals of the organization, measures of outcome performance tend to be unique to the sector in which this organization operates, or even the type of organization under study. Due to the organization-specific nature of

outcome performance, our taxonomy of job performance does not categorize different types of outcome performance. Rather, it provides examples of outcome measures that organizations may register themselves. While some organizations objectively measure outcome performance through productivity, for other organizations such a clear-cut measure of productivity is not available. For instance, call-centers could register productivity by keeping count of the number of calls made per hour, and factories in which productivity is fully machine-paced could measure outcome performance in terms of the time that the factory has been running without being interrupted (i.e., uptime).

4. Why Work Engagement Improves Job Performance: A Dynamic Approach

In addition to adapting the JDR-WE model (Bakker & Demerouti, 2007) with respect to job performance, we developed a theoretical model accounting for the positive relation between work engagement and job performance (Figure 2). Based on Frederickson's (2001) Broaden-and-Build theory, our model assumes that the affective-motivational state of mind of work engagement affects (1) one's cognitive functioning (i.e., cognitive open-mindedness), and (2) one's intention to act upon that motivational state (i.e., behavioral readiness). Specifically, we propose that work engagement affects the level of motivated information processing (Kruglanski & Webster, 1996) that manifests itself in cognitive open-mindedness. Further, broadened thinking has been found to increase the experience of positive affect as well (Frederickson & Joiner, 2002). This suggests that cognitive open-mindedness (as a form of broadened thinking) will also affect work engagement.

In addition, work engagement is assumed to facilitate behavioral flexibility, and thus one's behavioral urges to perform well on the job (Frederickson & Losada, 2005). Moreover, as a widened array of thoughts calls for the expansion of one's behavioral repertoire, we furthermore assume that one's cognitive open-mindedness and behavioral readiness interact in increasing job

performance. In the following we explain these linkages more elaborately.

4.1. Engagement – cognitive Open-mindedness – performance

Work engagement is considered to be a motivational state of mind (Schaufeli & Bakker, 2004), and refers to the affect or feelings one experiences when at work. All three dimensions – vigor, dedication, and absorption – of engagement tap into a proactive attitude of employees (Salanova & Schaufeli, 2008). The affective-motivational state of work engagement is expected to open up a worker's mind for multiple incentives in their environment, as positive affect enhances broadened thinking (Frederickson, 2001). Therefore, absorption may account for engaged employees' widened array of thoughts and their desire to deeply and accurately understand their work (surroundings) based on multiple incentives in their work environment.

In addition, previous research has suggested that the pervasive, affective state of work engagement is best maintained when instigated by intrinsic motivation (Van Beek, Hu, Schaufeli, Taris & Schreurs, *submitted*; Ryan & Deci, 2000). An intrinsically motivating activity enhances both the tendency to extensively explore that activity and the amount of effort put into that activity (Brown & Leigh, 1996; Webster, 1993). This cognitive mindset in which people desire an accurate and deep understanding of the activity is called *epistemic motivation* (Kruglanski & Webster, 1996). Since engaged workers are mainly intrinsically motivated to perform their job, it seems plausible that they will be epistemically motivated as well. High levels of engagement will therefore relate positively to employees' desire to understand their work tasks/environment more accurately and deeply. Note that this so-called cognitive open-mindedness is referring to a state rather than a trait. Alike the need for cognitive closure (Taris, 2000; Webster & Kruglanski, 1994), both stable dispositional differences as well as differences based on context may exist in the need for cognitive open-mindedness. As it is

however here assumed that cognitive open-mindedness is influenced by the level of work engagement, the current model focuses on the state rather than the trait of cognitive open-mindedness.

The extent to which one's cognitive open-mindedness enhances performance is likely to depend on the degree to which the specific activity requires open-mindedness in information processing (De Dreu & Carnevale, 2003). Job activities that require effortful, deliberate, systematic processing that involve rule-based inferences will profit from high levels of epistemic motivation. Conversely, job activities that call for quick, effortless, and logical responses should not thrive on high levels of epistemic motivation. For instance, epistemic motivation was found to enhance problem-solving decision behavior in social interactions (De Dreu, Beersma, Stroebe, & Euwema, 2006; Galinsky & Kray, 2004), to enhance learning (De Dreu, 2007), and to positively influence innovativeness (De Dreu, 2002; Tjosvold, Tang & West, 2004). As problem-solving in social interactions and innovativeness can be construed as extra-role behavior (see for instance the helping behavior and civic virtue scales of Smith, Organ & Near's, 1983, measure of OCB), work engagement should have a positive effect on extra-role behavior due to high epistemic motivation. Similarly, problem-solving is functional for the job. Hence, work engagement is expected to have a positive effect on extra-role behavior as well as on in-role behavior due to a broadened cognitive open-mindedness.

4.2. Engagement – behavioral Readiness – performance

Experiencing engagement involves experiencing positive emotions such as pride, enthusiasm, and joy that are part of the dedication dimension (Bakker & Demerouti, 2007). Apart from leading to a widened array of thoughts (Frederickson, 2001), positive emotions also stimulate exploratory and learning behavior (Fazio, Eiser, & Shook, 2004). Thus, broadening one's thoughts through positive emotions will

lead to the acquisition of new knowledge and skills. Moreover, positive emotions are assumed to build more accurate cognitive maps of the (work) environment (Frederickson & Losada, 2005), indicating a relation between positive emotions and increased feelings of competence. Recent studies show that positive emotions are positively affected by high levels of available job resources, and consequently lead to the more pervasive positive state of work engagement (Schaufeli & Van Rhenen, 2006). Other research suggests that engagement and positive emotions are reciprocally related. Specifically, in a three-wave longitudinal study Salanova, Llorens, & Schaufeli (*in press*) found that employee efficacy beliefs increase due to a gain spiral between work engagement and enthusiasm.

Similar to positive emotions (Cacioppo, Gardner& Berntson, 1999), work engagement is assumed to stimulate approach and exploration of novel objects, people and/or situations. Before moving into a goal-directed activity or striving (Insko & Schopler, 1967), one must have the intention to execute that particular behavior (Kuhl & Kazén, 1999). In spite of cognitive open-mindedness, one will not proceed to actually manifest the explorative behavior unless one is ready to conduct that behavior. According to our theoretical model, highly engaged employees are presumably behaviorally ready and cognitively open-minded (Figure 2).

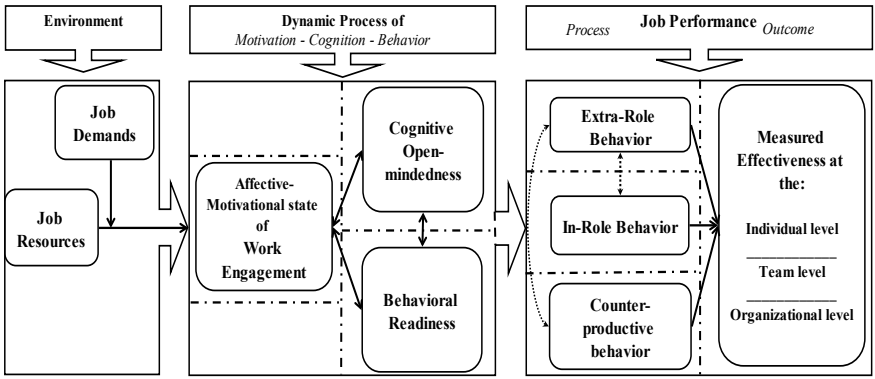

Figure 2. Theoretical model of the dynamic process Motivation – Cognition – Behavior in relation to Job Performance

Similar to the proposed interactive relation between work engagement (motivation) and cognitive open-mindedness (cognition), it is assumed that work engagement interacts with behavioral readiness (behavior) in order to arrive at good job performance. In line with previous mental representations (Isen, Shalker, Clark, & Karp, 1978; Wielenga-Meijer, Taris, Kompier & Wigboldus, 2010), behavioral readiness and positive affect may mutually affect each other (Frederickson & Losada, 2005). As actual exploratory behavior (learning) is closely related to extra-role and in-role behavior such as *personal initiative* (Frese, Fay, Hilburger, Leng, & Tag, 1997) and individual creativity (Hirst, Van Knippenberg, & Zhou, 2009), we hypothesize that work engagement is positively related to those two types of process performance as a function of behavioral readiness. This also implies that engagement is positively associated with outcome performance. Furthermore, the dynamic process involving work engagement, cognitive open-mindedness and behavioral readiness is assumed to decrease counter-productive behavior, and thus to prevent ineffectiveness.

5. Where to go from here

This chapter presented a preliminary theoretical framework that allows for more systematic research on the motivational process of the JDR-WE model and its effects on job performance. Novel to this well-established model within the field of Occupational Health Psychology, the framework proposes a dynamic process in which motivation (i.e., work engagement), cognition, and behavior interact in order to explain the association between the affective-motivational state of work engagement and job performance. Such research requires a full understanding of what job performance refers to, and ideally this full meaning of job performance should be captured in research on the relation between work engagement and performance. Indeed, our innovative framework proposes that work engagement is differentially related to process performance in dynamic interaction with the extent of

cognitive open-mindedness and behavioral readiness. Outcome performance presumably benefits most when extra-role and in-role behavior are high and counter-productive behavior is low.

5.1. A Research Agenda

In order to investigate whether our innovative, theoretical framework is viable, future research should investigate the various types and dimensions of job performance as proposed in the extended model of the JDR-WE model (Figure 1). Furthermore, this research should incorporate the concepts of work engagement, cognitive open mindedness and behavioral readiness in an attempt to understand why work engagement commonly leads to good performance (Figure 2).

Methodologically, two new instruments ought to be developed and validated to measure the new concepts of cognitive open-mindedness and behavioral readiness. Furthermore, the proposed theoretical framework should be tested using a longitudinal *multiple-group* design composed of at least three measurements (to allow for a proper examination of mediation effects) with an interval of at least six months (to allow the explanatory variables to affect the presumed outcomes) (Dormann & Zapf, 2002). In order to detect possible reversed causal relations, all three waves should measure work characteristics, employee well-being in the form of work engagement, cognitive open-mindedness, behavioral readiness and job performance. The intended inclusion of multiple-groups specifically refers to different organizations, so we can examine whether the theoretical framework is invariant across different types of professions. Of course, future research may also include multiple-groups based on cultural differences by testing the model in different countries. Although the positive relation between work engagement and job performance has been initially established in different settings across different countries (e.g. Finland – Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; USA – Halbesleben & Wheeler, 2005; Spain – Salanova, Agut, & Peiró, 2005; The Netherlands – Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009), it cannot be concluded that the proposed dynamic process explains this relation in a similar vein among different cultures. Previous literature does, for instance,

suggest cross-cultural invariance regarding cognitive open-mindedness (i.e. need for cognitive closure: Mannetti, Pierro, Kruglanski, Taris & Bezinovic, 2002), yet the dynamic process between engagement, cognitive open-mindedness and behavioral readiness may as well differ across cultures based on different interpretations of concepts such as work engagement (i.e. Shimazu, Schaufeli, Miyanaka, & Iwata, 2010).

Traditionally, occupational health services and health insurance companies are especially interested in identifying characteristics that result in burnout, absenteeism and disability to work. Such knowledge can be used to prevent and avoid sickness absence. However, in practice the effects of measures to prevent illness among workers are often quite limited. Conversely, organizations have ample opportunity to stimulate and promote well-being (rather than to prevent sickness) amongst their healthy workers in order to optimize job performance. Therefore, occupational health services and health insurers should increasingly focus on stimulating healthy workers' engagement. Consequently, it is of utmost importance that we gain more scientific and empirical knowledge if employee engagement indeed positively contributes to their performance. Only then can we consider the health and well-being of workers a strategic investment instead of a persistent cost.

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